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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/845,513	04/30/2001	Peter Lenehan	A1696	2082

7590 02/12/2004  
Stephen R Seccombe  
Sheldon & Mak  
225 South Lake Avenue  
9th Floor  
Pasadena, CA 91101

EXAMINER

ALEXANDER, LYLE

ART UNIT	PAPER NUMBER
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1743

DATE MAILED: 02/12/2004

Please find below and/or attached an Office communication concerning this application or proceeding.

**Office Action Summary**

Application No.

09/845,513

Applicant(s)

LENEHAN, PETER

Examiner

Lyle A Alexander

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1743

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 16 April 2003.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1,2 and 4-13 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2 and 4-13 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \* c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
  2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)  | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152)             |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)<br>Paper No(s)/Mail Date <u>2</u> . | 6) <input type="checkbox"/> Other: _____  |

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***Claim Rejections - 35 USC § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

Claims 4-13 are rejected under 35 U.S.C. 102(b) as being clearly anticipated by Anderson, Bienkowski, Luchaco or Ezoe et al.

Anderson (USP 5,083,427) teaches a method for detecting and compensating for chemical aging of system and adjusting the A/F ratio as a result of the aging to minimize noxious emissions. A closed loop feed back system is created with the engine, universal exhaust gas oxygen (UEGO hereafter) sensor and a catalyst. Column 2 lines 32+ define the feed back control loop as means to measure a controlled quantity of exhaust and compared it to a standard representing the desired performance. Column 4 lines 3+ teach the A/F feed back loop adjusts the A/F ratio over time to compensate for sensor aging. This has been read on the claimed closed loop oxygen sensor monitoring and test modes. Column 6 lines 1+ teach the system is integral with the automobile and has been read on the claimed portability. With respect to the claimed operating conditions of voltage, etc. these appear to be directed to method of intended use of the apparatus that is of no patentable moment as long as the taught apparatus has the ability to achieve these conditions. The Office maintains, the cited art would have been expected to be capable of achieving the claimed operating conditions of voltages, etc.

Bienkowski (USP 4,622,844) teaches a monitor (26) to check the operation of an oxygen sensor (20) in an automobile. A comparator (70) compares the output signal with a reference signal. When the output signal is equal to the reference signal regulator (64) activates a diode (40) to inform the operator the sensor (20) is operating acceptable. This has been read on the claimed closed loop oxygen sensor having monitoring/test modes and a display. Column 1 lines 40+ teach the monitor is portable and is used on vehicles to monitor the performance of the oxygen sensor that has been read on the claimed portability. With respect to the claimed operating conditions of voltage, etc. these appear to be directed to method of intended use of the apparatus that is of no patentable moment as long as the taught apparatus has the ability to achieve these conditions. The Office maintains, the cited art would have been expected to be capable of achieving the claimed operating conditions of voltages, etc.

Luchaco teaches a sensor for determining the functionality of an oxygen sensor connected to an internal combustion engine for the purpose of controlling the fuel injection to minimize noxious emissions. The system comprises an exhaust sensor(10), a transition detector(12), a multivibrator(14) a transitional interval indicator(16), a test circuit control means(18), a fuel control unit(20), an injection control means(22), an indicator level sensor(24) and a failure latching means(26). The test circuit is responsive to at least one predetermined engine operating condition. This has been read on the claimed closed loop oxygen sensor monitoring and test modes. With respect to the claimed operating conditions of voltage, etc. these appear to be directed to method of intended use of the apparatus that is of no patentable moment as long as the taught apparatus has the ability to achieve these conditions. The Office

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maintains, the cited art would have been expected to be capable of achieving the claimed operating conditions of voltages, etc.

Ezoe et al. teach a diagnostic monitoring device that includes a detection of engine parameters feed back control signal detector, a logic circuit and a display mean. The device determines the performance of an oxygen sensor using a feed back control loop. Visual indicators display normal or abnormal condition of the oxygen sensor. This has been read on the claimed closed loop oxygen sensor monitoring and test modes. With respect to the claimed operating conditions of voltage, etc. these appear to be directed to method of intended use of the apparatus that is of no patentable moment as long as the taught apparatus has the ability to achieve these conditions. The Office maintains, the cited art would have been expected to be capable of achieving the claimed operating conditions of voltages, etc.

### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

Claims 1-2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Anderson, Bienkowski, Luchaco or Ezoe et al. alone or in view of Zaleski .

See Anderson, Bienkowski, Luchaco and Ezoe et al. supra.  
These references are silent to inclusion of a keypad.

Keypads for electronic devices are ubiquitous and notoriously well known in the art. It appears the prior art devices would have to have keypads to navigate between various the various functions/modes taught by the cited prior art. One having ordinary skill in the art would have expected the taught devices to be associated with a keypad to accomplish the various taught functions/modes. The reason for the absence of such a description is the keypad is so well known no mention was needed.

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Zaleski teaches an interactive automotive testing system that includes a portable keypad. The keypad is advantageous because it permits the operator to easily access other programs and manipulation of the data.

It would have been within the skill of the art to modify Anderson, Bienkowski, Luchaco or Ezoe et al. and include a keypad to gain the above advantages.

***Conclusion***

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Lyle A Alexander whose telephone number is 571-272-1254. The examiner can normally be reached on Monday, Wednesday and Friday.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jill Warden can be reached on 571-272-1267. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Lyle A Alexander  
Primary Examiner  
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